

Abstract of the Disclosure

A beamforming system and method. The inventive beamforming system [(100)] is adapted for use with an array antenna [(112)] having a plurality of antenna elements [(1 – 7)] and includes [an FFT (122)] a Fast Fourier Transform (FFT) for transforming a signal received by an antenna into a plurality of frequency subbands. A plurality of adaptive processors [(800)] are included for performing adaptive array processing on each of the subbands and providing a plurality of adaptively processed subbands in response thereto. A normalizing processor [(900)] is also included for normalizing the adaptively processed subbands. In the illustrative embodiment, the signal is a [(GPS)] Global Positioning System (GPS) signal and a digital multiplier [(126)] for applying a weight to a respective frequency subband for each of the elements of the array. The weights are chosen to steer a beam in a direction of a desired signal. Normalization involves adjusting the amplitude of one or more of the subbands to remove any bias distortion due to the adaptive processing thereof.